

ABSTRACT OF THE DISCLOSURE

The invention relates to a computer-generated hologram for the reconstruction of a three-dimensional image, which has ever higher resolution, much more parallaxes and no image distortion problems, and which makes any holographic photostep unnecessary and image processing easy as well. The invention provides a computer-generated hologram 12 with the complex amplitude of object light recorded therein so that a stereoscopic object is reconstructible, wherein a group 11 of virtual point light sources is spatially set on the side opposite to the viewing side of hologram 12, the luminance angle distribution $T_{WLC1}(\theta_{xz}, \theta_{yz})$ of divergent light from each virtual point light source in virtual point light source group 11 toward the viewing side is set in such a way as to be equal to a luminance angle distribution on the surface of the object 10 to be recorded as the virtual point light source is viewed from the viewing side, and the initial phase of divergent light diverging from each of the virtual point light sources is kept constant, so that divergent light beams from the virtual point light sources are superposed one upon another and recorded as object light 1 in any position on the viewing side of the virtual point light source group 11, on which the divergent light is incident.